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LYON PLAYFAIR'S LIFE.

Memoirs and Correspondence of Lyon Playfair, First Lord Playfair of St. Andrews, P.C., G.C.B., LL.D., F.R.S. By Wemyss Reid. Pp. xii + 487. (London: Cassell and Co., Ltd., 1899.)

In writing the life of Lyon Playfair, and editing his autobiography and correspondence, Sir Wemyss Reid has had a congenial task, and this he has accomplished with his usual tact and success. The result is a volume full of interest both for the scientific and for the layman, for Playfair himself truly defines his position as half man of science and half politician, and his biographer has rightly appreciated the remarkable dual part which he played, and the work which in each direction he accomplished:

"The man the story of whose life is to be told in these pages, never rose to that dazzling eminence which justifies the world in describing a human being as supremely 'great.' He did not pretend to the genius which lifts a few men high above their fellows. It cannot be affirmed that he was one of the great figures of his generation. Yet his life, though it was lived without ostentation and without parade, was undoubtedly one of the fullest and most useful lives of his time. It was emphatically a life of work, and of work not for the accumulation of wealth, or for the achievement of fame, but for the acquiring of truth, and for the service of his fellow men."

The most interesting portions of the volume are doubtless those containing Playfair's own description of his life and labours. These, although fragmentary, give a truer picture of the man and his doings than can be attained even by so skilled a biographer as Wemyss Reid. Playfair did not write them with a view to publication, and begins by remarking that if they are ever made public,

"My only apology is that they may form some encouragement to others, who, like myself, have had in early life few friends and no influence, to believe that their future position depends upon themselves and not upon their surroundings."

This is indeed the keynote of the life. The story, told by Playfair in his own way, is one not of adventure but of work. Many a poor Scots lad has done as great things, and risen in the social scale as high as, or higher than, Lyon Playfair, but no one carried out his life's work more devotedly than he.

"To Lyon Playfair the good of his country," truly says his biographer, "was a thing to be pursued not merely in the Senate or on contested fields, but in the laboratory and the council room, in social intercourse and in the humdrum round of daily life. It was something calling not so much for isolated deeds of heroism as for a prudent and unremitting care extending even to the most trivial tasks and incidents."

And he was fortunate in the period over which his life's work extended. In early days he showed his partiality for scientific studies, and especially for chemistry. In 1835 he left the Glasgow University, where Thomas Thomson was the professor, for the Andersonian College, where a younger and more active man—Thomas Graham—occupied the chair. This was a fortunate step, for Graham, himself actively engaged in research, fired

Playfair with a desire to do likewise, and sent him to Giessen.

"On presenting myself to Liebig," he says, "I was much struck by his handsome appearance and classically cut face. I mentioned my name and told him that I was a pupil of Graham's, and he laughingly said, 'You might have said that you are the discoverer of iodo-sulphuric acid,' which I had recently described in short papers,"

the titles of which are not, however, to be found in the Royal Society's Catalogue. This introduction and the friendship which followed were the most important events in Playfair's early life. He translated the "Agricultur Chemie," though "my knowledge of German was not good." This candid admission is amusingly borne out in a letter written many years later to his wife, in which he says of a German girl that she speaks English "schlecht," but French "vorläufig," instead of "geläufig"!

Notwithstanding the above opinion, there is no doubt that Playfair's English translations of Liebig were well done, and that they were the means of introducing him to many men of position and influence in this country, by whom his talents were soon appreciated and whose friendship formed a starting-point in his career.

The story of his introduction to the great Sir Robert Peel is well told, and the results were as unexpected as they were gratifying. The question of sanitary reform then arose, and Playfair was fortunate in being one of the first to be employed in carrying out the battle against dirt and disease, and to his last days he remained what he was in his youth, the most energetic of sanitary reformers.

Then, again, he was fortunate in being a forerunner of the great educational movement which has been one of the chief glories of the nineteenth century. That he was well fitted to be the pioneer of technical instruction was due to his true appreciation not only of the value of pure science as a means of culture, but of the importance of the application of scientific principles to the arts and manufactures.

"Not to teach trades or manufacturing, but the principles, scientific and artistic, which underlie those trades and manufactures,"

was his definition; and that he lived to see these principles carried into effect must have been to him a source of keen satisfaction.

"In the chapter which history devotes to the social progress of our century, Playfair's name must always hold a place of honour."

Early in the year 1851 he was brought into personal and intimate contact with Prince Albert, and soon the confidence of the Prince was gained, so that Playfair from that time forward became his trusted adviser and friend. Although Playfair acted as Gentleman Usher to the Prince Consort, and was afterwards a Lord-in-Waiting upon the Queen, he, as he tells us, was not a courtier in the sense often ascribed to the word. He spoke his mind fully and frankly both when his views were in agreement with, and also when they were opposed to those held by "exalted persons." Of the Prince Consort's character and abilities he had the highest opinion.

"The attachment to his service," he says, "gave me the privilege of being associated with the illustrious Prince in many of the works which he undertook to promote education, science, and art. . . . In all my future intercourse with the Prince, I never on any occasion saw him animated by a single desire that was not connected with the public weal. . . . Only those who had the honour of his confidence can fully know the purity, ability, and simplicity of his character."

The history of the Great Exhibition of 1851, of the many difficulties satisfactorily surmounted, and of the grand final success, are all graphically told, including the celebrated story of the "Junk Chinaman" dressed up to represent a "yellow jacket" mandarin, and placed in the procession between the Archbishop of Canterbury and the Duke of Wellington! Greater than his services to the Exhibition were those which he bestowed on the appropriation and consolidation of the large funds placed at the disposal of the Royal Commissioners. Without the advice and the business capacity of Playfair this fund, now large and altogether devoted to purposes of science and art, would have been in danger of being frittered away, if not lost. "Nobody but yourself," writes the Prince of Wales to Playfair in 1889, "could have got us out of the serious pecuniary embarrassments in which we found ourselves placed."

"So long as South Kensington continues to exist in its present state, there will be no need to raise any monument to the memory of Lyon Playfair."

The letters and memoir contain interesting descriptions of professorial life at Edinburgh. He does not scruple to dilate on some amusing but not very creditable University squabbles in which he was often called upon to act as arbitrator. Then comes his Parliamentary career in both Houses, the details of which are both interesting and entertaining. How he represented the Universities of Edinburgh and St. Andrews. How he retired from this constituency in consequence of the Government putting Scotch education under a Scotch Secretary. How he was elected for South Leeds, "a working man's constituency, where he received an almost enthusiastic appreciation, which quickly developed into a feeling of warm confidence and affection."

As Chairman of Committees in the Commons, he had hard times in consequence of Irish insubordination. But he did yeoman service in speaking out strongly and fearlessly about the follies and the crimes of the Anti-vivi-sectionists and the Anti-vaccinators. The correspondence which occurs throughout the volume with persons of all ranks is full of interesting matter. The letters to his wife and children, and to the members of the Russell family, show the depth of his feelings, although, as one of his children writes:

"No letter he ever wrote could give an idea of his deep and intense sympathy, of his loving help in any trouble to those dear to him, and even to strangers. I never in the whole of my life have seen him cross or impatient, or known him speak a harsh word to any one."

Then his sense of humour was keen, and his powers as a raconteur were of the first order, and not the least interesting portion of the memoirs is that in which these powers are shown by the numerous anecdotes with which the volume abounds. Altogether the book is one which will be found full of interest, as giving a striking picture of a wonderfully full and varied life. H. E. R.

THE GOLD-FIELDS OF ALASKA.

Alaska and the Klondike: a Journey to the New Eldorado, with Hints to the Traveller, and Observations on the Physical History and Geology of the Gold Regions, the Conditions of Working the Klondike Placers, and the Laws governing and regulating Mining in the North-west Territory of Canada. By Angelo Heilprin, F.R.G.S., F.G.S.A. Pp. 315; with 35 plates from photographs, and 3 maps. (New York: D. Appleton and Co. London: C. A. Pearson, 1899.)

THE search for gold still holds something of the romantic glamour which has surrounded it from the earliest days of our civilisation. It is true that conditions have enmeshed the winning of gold from vein and banket, reducing it, like diamondmining, to a systematised industry scarcely more inspiriting to the labourer himself than the mining of coal or ironstone. But placer-deposits still offer a possible chance of sudden riches to the man possessed only of bodily vigour and a few simple uncostly implements, and men's imaginations still take fire whenever the rumour reaches them that the old conventional symbol of wealth is to be had for the digging. And still, as in the ancient days, the greater the difficulties to be overcome, the stronger to the adventurous spirit seems the probability of success. So when, in 1896-7, through an ever-widening circle, was spread the news of rich discoveries of the precious metal in a remote and barely accessible corner of north-western America, thousands were found ready to cast aside their everyday pursuits and make, in the words of the wise Camillo,

"a wild dedication of themselves To unpathed waters, undream'd shores, most certain To miseries enough."

To any one knowing anything of the land, the newspaper information which led to the rush seemed strangely inadequate and misleading—a characteristic compound of half-truths, whole truths and untruths, out of which stood the bare fact that placers of unusual richness had been found. What was heedlessly lost sight of in the excitement was that this discovery was not the sudden outcome of a single traverse of a previously unknown Golden Land, but had been attained only at the end of twenty years of persistent exploration, during which, though in the aggregate much gold had been won, the average net individual gain had been rarely more and often less than "day-wages."

As usual, these initial stages (unmentioned in the volume before us) attracted little or no attention from the outside world, for the restless spirits who undertake the hardships of pioneer life in the unbroken wilderness, though perhaps too fluent in speech, write no descriptions of their journeyings. Almost everywhere these men penetrate in advance of the "original explorer," who often in his own narrative forgets to mention their presence; but unless some unusual happening brings their doings into prominence, their traces in the land they have traversed are slight. In this instance it was surely a matter for prime consideration that a body of more or less experienced men—in numbers, according to a table published recently in the eighteenth Annual Report of the U.S. Geological Survey (p. 132),

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